WAYUU MANGROVE BEEKEEPING GEE PROJECT

Promoting a Sustainable Future

TEAM 20

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Business Proposal

The Wayuu Reforestation and Beekeeping Initiative is a business aimed at creating a more economically and environmentally sustainable future for the Indigenous Wayuu Community. Our project has two interlacing components – the first is to create a sustainable bee-keeping business using wild and free building colonies that source the nectar from the mangrove plants located on the La Guajira Peninsula – the honey extracted will be then exported to the EU in bulk containers to collaborate with other export honey cooperatives to package, market and sell.

The second component of this business will be dealing with reforestation of the black, red and white mangrove plants that provide the sweet nectar to the bees and also replanting other plants such as perennial & indigo into the ecosystem– this aspect is important for the future growth of the honey production and is imperative to the long term sustainability of the mangrove ecosystem which has been seriously eroded from the effects of shrimp farming in the region. Bee-keeping is a sustainable income generating activity that is practiced by many people and companies around the world. However, bee-keeping on the La Guarjira Peninsula has been currently unexplored as an option for sustainable development.

Business Overview

WAYUU

The Wayuu community are an indigenous group that occupy the La Guajira Peninsula which spans the Venezuela- Colombia border on the Caribbean Sea Coast. The land inhabited by the Wayuu community is very arid and not very ideal for harvesting crops. The Wayuu rely on salt production (through the mangroves), subsistence farming – grazing animals such as goats and cows and have recently some artisans have began to trade their traditional woven chinchorros (hammocks) and mochilas (bags) to world markets. Problems that the Wayuu people face is the scarcity of resources, presence of violent groups in the area and extractive mining and energy companies exploiting their land resources.

While the Wayuu's land is desolate and is not very productive for harvesting crops, the Wayuu has access to the large Mangrove ecosystem around some of its shoreline which acts as a "buffer" zone between the land and the seas. Mangroves have variety of uses: Mangroves twigs provide a good substitute for charcoal, provide a good choice of feed for grazing animals such as cows, buffalos and goats, provide the food that the many crustaceans depend on for survival and attract and sustain the bees that facilitate apiculture activities. Access to a large Mangrove ecosystem has been exploited for shrimp farming by the Wayuu people as the mangrove roots provide a suitable home for a large number

of marine fauna such as shrimps and prawns. Particularly as the demand for shrimps has increased, collecting shrimps from mangroves has become a very attractive enterprise.

Mangroves have other, very important environmental functions. They are among the worlds most unique and productive ecosystems that exhibit various adaptations in different environments. Mangroves provide a natural barrier to the damaging effect of storms and protect the foreshores from soil erosion and flooding. Despite the Wayuu's reliance on shrimp farming for economic reasons, shrimp farming under its current practices, has a negative impact on the long term sustainability of the mangrove ecosystem because it implies cutting down many of the flora to make room for shrimp ponds and eventually strips the mangrove of much of its fauna which is essential for its survival.

Mangroves have always been good habitats for bee colonies because mangrove flora supplies a year round source of nectar and pollen, provides an unlimited source of water and the level of vegetation is a good shelter for hives from unpredictable weather.

Business Objectives

- Create a sustainable "green" venture that lessens the impact of current activities (such as shrimp farming) that threatens to destroy a valuable ecosystem that protects the Wayuu's land from soil erosion, "green house gases" and the impact of storms on shore stabilization and soil erosion.
- To continually strengthen the mangrove ecosystem through propagation – through creating a nursery from parent trees, and as an indirect result of beekeeping (bees are natural pollinators). Replanting the mangroves will help produce more nectar which will enhance the capacity to handle more bee colonies and thus increase future honey production.
- To improve the biodiversity of the La Guajira Peninsula, which will benefit the long term sustainability of the Wayuu People .

The Product

Our product is 100% natural "certified organic" mangrove honey sourced from the black mangrove trees. With funding from our creditors we plan to become a 'Certified Organic' honey producer in our 1st 2 years of business. 'Certified Organic' honey is highly sought after in the EU markets due to many cold winters and lack of unpolluted areas in the EU which inhibits organic beekeeping practices. In contrast, our product is 'organic by default' as mangroves and balmy conditions are a natural breeding ground for bees. We will not use any additives, chemicals, synthetic fertilisers or pesticides in any aspect of the supply chain as these are costly and their presence could damage our bees and degrade the mangrove ecosystem. We will conserve, reuse and recycle all materials used in the operation and most materials used for our hives and extraction techniques will be used from local ingredients or sourced from local suppliers.

Beekeeping Method

We will use top bar hives for the bees to develop their nest and collect honey. This method is ideal for our business as the bars can be easily attached to the mangroves which means the bees can be kept close as possibly to their natural home. Top bar hives are also inexpensive as they can be constructed out of local resources (We will be using the tough inside of the cactus – a traditional building material used by the Wayuu

people that is similar to bamboo). When it is time to harvest the honey, smoking will be use to calm the honeys and move them away from the honey comb. The honey will then be extracted using the traditional extraction method.

Mangrove Replanting

We plan to propagate the mangrove tress by taking seeds and samplings from the parent trees. Placing them in nursery in a shallow tidal area (surrounded by a fence made from inner cacti) will give the mangroves a chance to grow before they are placed back into the ecosystem. We will collect the seeds that have fallen on the ground for the black, red and white species. Our hired help will provide the knowledge needed to carry out the germination process and give advice for future maintenance and replanting. We will also plant other plant species (not part of the mangroves) in order to further assist the bees collecting pollen. These species will have to be tolerance to drought so we will use perennial, window boxes, indigo, milkweed, coneflower –which we will source locally.

Market Analysis

Target Market: The EU

According to the CBI report there is a steady growing market for fair trade honey particularly in Germany, UK, Spain, Italy, Belgium and France.. By 2007 this market had reached 1.7 thousand tonnes and seems to be growing at a steady rate.

Market opportunity

On taking the CBI sponsorship, the Wayuu community will be exporting within 18 months, after the necessary beehive lay out be established in accordance to European standards. Beehive installed capacity should be at least 125 million pounds a year of natural honey to ensure full container deliveries on a monthly basis since using a cooperative approach for consolidated shipments.

For the Wayuu community Honey beekeeping is attractive since it is not just a profitable activity but a green one. It is not in contempt with nature, on the contrary it is pro nature and in consequence this can be a strong argument to count on CBI sponsorship programs to enter the European market. These programs work on an audit basis approach, that helps the agency detect those organizations that have the will and strong commitment to meet CBI standards that would enable them to export to Europe.

Honey global market is likely to carry a deficit due to climate challenging issues. According to the CBI report, climate changes has become an issue for major producer countries therefore it is probable that prices and demand remain strong. EU consumers praised natural honey as a basic nourishing for their diet. European consumers do not appreciate China's natural honey due to past contamination of chloramphenicol in it.

Risk and barriers

- Funding for the project
- The EU only allows entrance of bulk honey. Overseas packed honey is not allowed.
- No chemicals are allowed to be used in bee hives or on the bees.
- Quality assurance/ meeting EU and "Ecolabel" standards and requirements– Ensuring the Wayuu people fully understand the appropriate methods
- Lack of access to EU market – establish strategic alliances with EU import packer-cooperatives

- Fulfill basic EU import requirements: Health Certificate, approved EU Border Inspection Post, EU Approval of the Residues Monitoring Plan (RMP)

Competitive Advantage

- Using sustainable methods and investing into the ecosystem is considered a value adding activity and it allows the product access into the EU markets and makes our products more appealing to buyers.
- As a small producer we have the advantage of being able to monitor every aspect of the supply chain closely and make sure we are adhering to the organic standards.
- Secure market access through CBI sponsorship and collaborating with other honey companies means that we do not have to focus on marketing. By selling the wholesale honey to importers we can focus solely on the production of honey and investing our returns back into the ecosystem
- Due to the biologically complexities of mangroves, working with honey mangroves provides added benefits to the honey extraction as termites and ants (problems with non-mangrove beekeepers) are not much of a problem and mangroves are also well protected from seasonal bushfires and storms
- Niche market speciality "organic" honey is well sought after in European markets.

Business strategies

Partnerships

Due to our low production volumes we will be making partnerships with packer-cooperatives in the EU. These packer-cooperatives are a group of bee-keepers who purchase, pack and market honey, mostly under their own label. Collaborating with other (much bigger) companies will allow our company to focus on the production of honey and preserving the mangrove ecosystem. Potential partnerships could be with Lamex Foods Group UK who specialise in all sorts of different honey and buy from suppliers all around the world or F.E.E.D.M (European Federation of Honey Packers and Distributors) who import a large chunk of their honey in from other countries and require very high quality standards.

- An partnership with the CBI (Centre for the Promotion of Imports from developing countries) is important as they are interested in helping initiatives in developing countries become successful in EU markets. There experiences and "know how" can provide us with market knowledge and contacts
- Our company will also be looking towards creating relationships with some local organizations such as: "Sociedad Geográfica de Colombia & Academia de Ciencias Geográficas" both who work as a government advisory bodies and have experience in the Colombian mangroves. These local support systems can further help the Wayuú community to fulfill the requirements for EU imports

Resources

- **Natural Resources:** Bees(sourced from a local supplier -... will be , Mangroves
- **Human resources:** Our company will hire two additional people (from Colombia) on a contractual basis to help with training the Wayuu in beekeeping methods and training the Wayuu in replanting the Mangroves in nurseries using the parent trees for seeds.

- **BeeKeeping equipment:** Top Bar Hives (made form inner cacti), protective clothing (sourced locally), a smoker, knifes , a bucket, bee brush, extractor container and drums for transport.

Distribution and transport

The best option is to transport the honey bee by sea, due to the relation in weight and volume occupied by the product and also the Wayuú territory (Peninsula of Guajira) is very close to the largest seaport of Colombia "Puerto Bolivar"
The transport is usually in bulk, in standard lacquered, epoxy-lined steel drums, which can contain 200 litres / 300 kg of honey.[1] The conditions of the need to be free of odors and smells and not used before for chemicals. The drums must have a rubber seal around the closure.[2]

- A full container could carry approximately 62 drums of 300 kg of honey.

Growth Strategies

- **Stage One (year 1 – year 3):** Establish 60 - 100 hives; Begin exporting after 18months; Begin mangrove nursery programme and start growing other plants . We plan to become "certified Organic" in the EU ("EcoLable) from the moment of inception. This will increase our premiums in the EU markets by 10% and give us a better competitive advantage when negotiating with buyers. Being from a developing country also has advantages in the cost of the European Ecolabel certification fees as their are reductions in the application and in the annual Fee.
- **Stage Two (year 3- 5):** As the skills and resources (both hive numbers and equipment) increases so will the level of our honey bee productivity. After the Wayuu has become established it can introduce value adding activities – using waste such as beeswax to create other products the Wayuu can sell to tourists (for example Wayuu ointment)
- **Stage Three (year 5- 10):** At this stage the first couple of mangrove nurseries should be ready to be replanted back into the mangrove system and the process restarted. At this stage the company should have payed back all of its investors/ funders and be making some nice healthy profits.
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Financial Strategy

We will like to start small and try to keep our cost at minimum without compromising the quality of our honey. We will raise the required capital through donation funds and grants by World Bank, UNDP and CBI sponsorship. We also plan on gaining funding for our "organic" certification process with help from the EU Ecolabel organization. We are anticipating to collect a fairly good amount of money (required capital and operational Cost). We are not choosing to apply for micro financing as you have to pledge some asset to the bank to secure a loan -in which case the Wayuu community would not be eligible. After 18 months the apiaries would be self sufficient to supply the ample number of bees and queens to expand the bee farm. This expansion will result in more honey production and revenues.

Mangrove Yearly Hive Honey Production = 30kg/66Lb Sale Price Lb=$2.49
200*66 = 13200Lb 13200*2.49=$32868
***Note in US dollars**

Balance Sheet			
Assets		**Equity**	$
Cash	$1,000	Capital	$31,953
Livestock(Bees)	$18,000		
Tools & Equiptment	$4,953		
Operating expenses	$8,000		
Total	**$31,953**		**$31,953**

Projected Income Statement			
		Year 1	**Year 2**
Sales		$ -	$ 32868
COGS		$ (5,000)	$ (7,000)
Operating expenses		$ (3,000)	$ (10,000)
* Income Tax Excluded			
Net Income		$ (8,000)	**$ 15868**

Cash Flow statement		**Year 1**	**Year 2**
Cash flow from operation activities	cash received from sales	$0	$32,868
	cash paid for expenses	($8,000)	($17,000)
Cash Flow from Investment Activities	purchase of livestock (bees+queen)	($18,000)	0
	purchase of tool and equipment	($4,953)	0
Total Cash Flow		($30,953)	**$15868**

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